

I. AMENDMENT

In the Claims:

The following listing of claims will replace all prior versions and listings of the claims in the application:

Listing of the Claims:

- 1-49. (Canceled)
50. (Previously Presented) A recombinant nucleic acid coding for at least one subunit of a glycerol dehydratase, wherein the catalytic activity of the glycerol dehydratase is not dependent on coenzyme B12 or one of its precursors, wherein the nucleic acid comprises a polynucleotide region comprising at least 90% nucleotide identity with the nucleic acid sequences of SEQ ID NO. 1 or SEQ ID NO. 2, or a polynucleotide with a complementary sequence to a polynucleotide region comprising at least 90% nucleotide identity with the nucleic acid sequences of SEQ ID NO. 1 or SEQ ID NO. 2.
51. (Previously Presented) The recombinant nucleic acid of claim 50, wherein the nucleic acid further encodes for two sub-units of the glycerol dehydratase.
52. (Canceled)
53. (Previously Presented) The recombinant nucleic acid of claim 50, wherein the nucleic acid comprises:
- (a) a first polynucleotide region having at least 90% nucleotide identity with the nucleic acid sequence of SEQ ID NO. 1; and
 - (b) a second polynucleotide region having at least 90% nucleotide identity with the nucleic acid sequence of SEQ ID NO. 2.
54. (Previously Presented) The recombinant nucleic acid of claim 53 further comprising a third polynucleotide region having at least 90% nucleotide identity with SEQ ID NO 4.

55. (Previously Presented) The recombinant nucleic acid of claim 54, wherein SEQ ID NO. 1 and SEQ ID NO. 2 are positioned 5' to SEQ ID NO. 4.
56. (Previously Presented) The recombinant nucleic acid of claim 54, wherein the nucleic acid comprises at least 90% nucleotide identity with the nucleic acid sequence of SEQ ID NO. 5.
57. (Previously Presented) The recombinant nucleic acid of claim 54 further comprising fourth polynucleotide region coding for a glycerol-3-phosphate dehydrogenase and a fifth polynucleotide region coding for a glycerol-3-phosphatase.
58. (Previously Presented) The recombinant nucleic acid of claim 53, wherein the nucleic acid further comprises a sequence with a transcription promoter function.
59. (Previously Presented) The recombinant nucleic acid of claim 58, wherein the promoter sequence comprises at least 80% nucleotide identity with SEQ ID NO. 3.
60. (Previously Presented) The recombinant nucleic acid of claim 58, wherein the promoter sequence comprises SEQ ID NO. 3.
61. (Previously Presented) The recombinant nucleic acid of claim 50, further defined as comprised in a vector.
62. (Previously Presented) The recombinant nucleic acid of claim 61, wherein the vector is further defined as an expression vector.
63. (Previously Presented) The recombinant nucleic acid of claim 61, wherein the vector is further defined as a cloning vector.
64. (Previously Presented) The recombinant nucleic acid of claim 61, wherein the vector is further defined as comprised in an isolated recombinant host cell.

65. (Previously Presented) The recombinant nucleic acid of claim 61, wherein the host cell is an *Escherichia coli* strain filed at the National Collection of Cultures of Micro-organisms (NCCM) on June 24, 1999 under the access No. I-2243.
66. (Previously Presented) The recombinant nucleic of claim 61, wherein the vector is plasmid pSPD5.
67. (Previously Presented) A recombinant nucleic acid sequence with a bacterial promoter function comprising a polynucleotide region having at least 80% nucleotide identity with the sequence SEQ ID NO. 3, or a polynucleotide with a complementary sequence to a polynucleotide region having at least 80% nucleotide identity with the sequence of SEQ ID NO. 3.
- 68-81. (Canceled)
82. (Currently Amended) A process for ~~the production of a polypeptide encoded by~~making a recombinant nucleic acid coding for~~polypeptide comprising~~ at least one subunit of a glycerol dehydratase, wherein the catalytic activity of the glycerol dehydratase is not dependent on coenzyme B12~~and wherein the polypeptide comprises at least 90% amino acid identity with SEQ ID NO. 6 or SEQ ID NO. 7, a recombinant nucleic acid encoding a dimeric protein comprising a first polypeptide comprising at least 90% amino acid identity to SEQ ID NO. 6 and a second polypeptide comprising at least 90% amino acid identity to SEQ ID NO. 7, or a recombinant nucleic acid that has at least 90% nucleotide identity with SEQ ID NO. 4 and encodes a 1,3-propanediol dehydrogenase comprising an amino acid sequence of at least 90% amino acid identity to SEQ ID NO. 8, comprising:~~
(a) preparation of an expression vector comprising a recombinant nucleic acid encoding a glycerol dehydratase having at least 90% amino acid identity with SEQ ID NO. 6 or SEQ ID NO. 7, a recombinant nucleic acid encoding a dimeric protein having glycerol dehydratase activity comprising a first polypeptide comprising at least 90% amino acid identity to SEQ ID NO. 6 and a second polypeptide comprising at least 90% amino acid identity to SEQ ID NO. 7, or a recombinant nucleic acid that has at least 90%

- nucleotide identity with SEQ ID NO. 4 and encodes a 1,3-propanediol dehydrogenase comprising an amino acid sequence of at least 90% amino acid identity to SEQ ID NO. 8;
- (b) introduction of the expression vector into a host cell;
 - (c) culture of the host cell in a suitable medium; and
 - (d) recovery of the polypeptide produced from the host cell.
83. (Previously Presented) The process of claim 82 further comprising purifying the polypeptide produced from the host cell.
84. (Previously Presented) The process of claim 82, wherein the polypeptide is recovered from the culture supernatant or the cell lysate.
85. (Canceled)
86. (Previously Presented) The recombinant nucleic acid of claim 50, wherein the nucleic acid comprises a polynucleotide region comprising at least 90% nucleotide identity with the nucleic acid sequences of SEQ ID NO. 1 or SEQ ID NO. 2, or the full complement of SEQ ID NO.1 or SEQ ID NO.2.
87. (Previously Presented) The recombinant nucleic acid sequence of claim 67, comprising a polynucleotide region having at least 80% nucleotide identity with the sequence SEQ ID NO. 3, or the full complement of SEQ ID NO. 3.
88. (Previously Presented) The process of claim 82, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO. 6 or SEQ ID NO. 7, or a dimeric protein comprising a first polypeptide comprising the amino acid sequence of SEQ ID NO. 6 and a second polypeptide comprising the amino acid sequence of SEQ ID NO. 7, or a polypeptide encoded by a recombinant nucleic acid comprising a first polynucleotide region coding for a 1,3-propanediol dehydrogenase comprising the amino acid sequence of SEQ ID NO. 4, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO. 8.